Appendix B

Comparison of Sagebrush Management Techniques

I. Prescribed Fire

Advantages

- A "natural" process, therefore, generally fewer environmental side effects
- Can be used in a wide variety of circumstances under the proper environmental conditions
- Returns nutrients to the soil quickly

Disadvantages

- Implementation can be potentially hazardous with associated liability
- Generally, requires fine fuels present (rest) to be effective
- Can potentially negatively affect non-target species
- Short term aesthetic, smoke and erosion concerns

II. Chemical (Herbicides)

Advantages

- Can be quite selective
- Can be relatively inexpensive
- Can be regulated for partial or total treatment
- Can cover large areas quickly

Disadvantages

- Many chemicals are residual, and may inhibit plant regrowth
- Can have environmental / toxic side effects if not used carefully
- Application rates and timing can be limiting
- Leaching and drift into non-target areas
- Can affect non-target species within the treatment area

III. Mechanical (Mowing, Chaining, Plowing/Ripping/Scalping/Pitting, Brushrake, Brush Disc, Choppers, Mulchers, Drills, Pipe Harrows, etc)

Advantages

- Can be quite fast
- Easily controlled
- Can be very effective when used under the right conditions
- Soil disturbance can prepare seed bed

Disadvantages

- Topography (i.e., relief/slope, rocky soils) can be limiting for many techniques
- Costs (equipment and operators) can be expensive in some cases
- Benefits may be short-lived
- Short term aesthetic and erosion concerns
- Cultural concerns
- Litter management may be required

IV. Biological (Insects and Herbivory)

Advantages

- Often target species (host) specific / selective
- Grazing treatments can be relatively inexpensive

Disadvantages

- Limited number of bioagents available
- Can take a long time (several years in some cases) to see wide-spread results
- Grazing methods can be counter-productive / abusive if not carefully monitored and managed